Abstract

A new class of distributed Bragg reflectors has been developed. These distributed Bragg reflectors comprise interlayers positioned between sets of high-index and low-index quarter-wave plates. The presence of these interlayers is to reduce photon absorption resulting from spatially indirect photon-assisted electronic transitions between the high-index and low-index quarter wave plates. The distributed Bragg reflectors have applications for use in vertical-cavity surface-emitting lasers for use at 1.55 μm and at other wavelengths of interest.